

**REMARKS**

Claims 1-3, 5-34, 37-68, 71-73, 76-130, 132, 134, 136 and 138-149 remain pending in connection with the present application. Claims 15 and 16 are amended. No new matter is added.

**INTERVIEW REQUESTED**

Applicants' representative attempted to call Examiner Ma to schedule a telephone interview on November 9, 2011. However, upon receipt of the Interview Request Form, Examiner Ma contacted Applicants' representative indicating that he would be leaving for three weeks, and thus the interview would have to be conducted after the due date of November 28, 2010 for filing the Amendment. Accordingly, **Applicants respectfully request Examiner Ma** to review the contents of this Amendment and **to contact the undersigned**, if all claims are not found to be allowable, **to schedule a mutually convenient time and date for conducting of a telephone interview**.

**ENTRY OF AMENDMENT REQUESTED**

The Examiner is respectfully requested to enter the present Amendment in that the Amendment to claims 15 and 16 merely overcomes a minor rejection under 35 USC Section 112 caused by inadvertently changing a "1" to a "2" and maintaining the claim dependency on cancelled claim 4 instead of changing the claim dependency from claim 4 to claim 2. The amendments to the claims merely place the claims back in their original form, merely correcting the claims to depend from claim 2 instead of cancelled claim 4. Such amendments do not raise any new issues requiring further consideration and/or search and merely place the claims in what is believed to be an allowable form.

**INFORMATION DISCLOSURE STATEMENT**

Applicants wish to thank the Examiner for consideration of the documents cited in the Information Disclosure of April 23, 2010, indicated by the initialing and returning of the PTO-1449 form submitted therewith.

### **ALLOWED CLAIMS**

Initially, Applicants wish to thank the Examiner for the withdrawal of all previous rejections and for the indication that claims 2, 60-62 and 132 are in condition for allowance and that the claims 21-24, 31 and 32 are objected to and would be allowable if rewritten in independent form. However, as all claims are believed to be allowable, the claims are maintained in their current form.

### **35 USC Section 112 REJECTIONS**

The Examiner rejects claims 15 and 16 under 35 USC Section 112 for being dependent upon cancelled claim 4. This rejection is respectfully traversed.

Claims 15 and 16 are now amended to correct their dependency and thus overcome the rejection under 35 USC Section 112 caused by previously inadvertently changing a "2" to a "1" and maintaining the claim dependency on cancelled claim 4, instead of merely changing the claims to depend on claim 2 (instead of cancelled claim 4). As the claims are now dependent upon claim 2, withdrawal of the rejection is respectfully requested.

### **PRIOR ART REJECTIONS**

The Examiner rejected claims 1-3, 33-34, 37-38, 63-67, 71-72, 76 and 139-149 under 35 U.S.C. §103 as being unpatentable over Kuwata et. Al. (US Patent Publication 2002/0044122, the Kuwata '122 publication) in view of USP 5,442,375 to Wojaczynski, the Wojaczynski '375 patent. This rejection is respectfully traversed.

### **Newly Cited Kuwata '122 publication**

The newly cited Kuwata '122 publication is directed to an image processing technique for use in an image display apparatus having a less number of expressible image tones than a number of tones included in original image data. For example, paragraph [0093] discusses a resolution converter circuit 53 to convert the resolution of color image data processed by an application program 30 and browser 40 into a resolution handleable and processable by LCD driver 56 of a small hand held device, such as a cell phone for example. An LUT is used for color reduction processing as discussed in paragraph [0105] and as shown in Fig. 6, to

map 256 tones of RGB color information to 8 tones of information. Even data processing is achieved based upon 6 threshold values.

### **The Examiner's Position**

The Examiner takes the position that the Kuwata '122 publication uses the thresholding to exclude components of a relatively lowest gradation level. The Examiner alleges that the threshold value TH of 0-15 excludes the components in the color channel with the relatively lowest gradation level to reduce the error component in the half tone process, citing to Figs. 6-7 and paragraphs [0105-0107]<sup>1</sup>. However, unlike the Examiner's previous position where the previously relied upon Tsuji reference allegedly taught compensation calculation based upon some relationship of color components and allegedly taught some type of exclusion of color information, the Examiner is now not even acknowledging that the "excluded" information corresponds to exclusion of a color component from a color calculation. Instead, the Examiner alleges that it can be any type of exclusion (thresholding via an LUT, to convert the resolution of color image data processed by an application program 30 and browser 40 into a resolution handleable and processable by LCD driver 56 of a small hand held device, such as a cell phone for example).

The Examiner still alleges that the primary reference lacks a component with a relatively smallest gradation level remaining unchanged before and after calculation, and in an effort to make up for only that acknowledged deficiency, relies upon the Wojaczynski '375 patent.

Regarding the Wojaczynski '375 patent, the Examiner acknowledges that although individual colors are selected at the display control 210, by adjusting one color in a display device, this essentially changes the balance of all colors used to produce a display. Thus, the Examiner's position is that the white color as shown in FIG. 2B for example, is a color of a relatively smallest gradation level. The Examiner argues that the white color will be excluded based on user customization, from a particular group of color components which are balanced to produce a

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<sup>1</sup> Page 3, lines 7-9 of the Office Action.

display of a particular color. The Examiner acknowledges that user manipulation takes place.

It is the Examiner's position that since both the Wojaczynski '375 patent and the Kuwata '122 publication are directed to some type of display of color information, their teachings can be combined to reject that the claims of the present application. **Applicants respectfully disagree.**

### **Applicants' Arguments**

The Examiner is relying on the Kuwata '122 publication as the main prior art reference. Although the Kuwata '122 publication arguably teaches some type of exclusion, it is mainly directed to resolution conversion from a 256 tone image, to an 8 tone image that a small LCD display can process. Thus, it really has **nothing** to do with calculating color components, let alone **EXCLUDING** one of the color components during calculation, let alone excluding a color component with a relatively smallest gradation level. The Kuwata '122 publication merely teaches thresholding via an LUT.

The Examiner is ignoring the fact that each of the independent claims **FIRST** addresses **PLURAL COLOR COMPONENT CALCULATIONS**, and then indicates that **ONE OF THE COLOR COMPONENTS** is excluded **FROM THE CALCULATION**. For example, claim 1 includes limitations of:

"...a color processor to determine a relationship between **plural color components** of an input color image signal..."

"...**carrying out calculation** based on the determined relationship **for each of the plural color components** excluding a component with a relatively smallest gradation level

(emphasis added).

Thus, even assuming *arguendo* that the Kuwata '122 publication did use thresholding to exclude something for resolution conversion from a 256 tone image, to an 8 tone image that a small LCD display can process (which is not admitted), claim 1 as indicated above (and indeed each of the independent claims of the present application, in their own way, noting that each should be interpreted solely by the limitations set forth therein) requires not just that components of a relatively lowest gradation level are excluded, but that the exclusion is of a color component

**during a calculation based on a determined relationship for each of plural color components** (the color component being one with a relatively smallest gradation level). This is clearly not taught or suggested by the Kuwata '122 publication, either taken alone or in combination with the Wojaczynski '375 patent, as the allegedly excluded components of the Kuwata '122 publication are for resolution conversion and have nothing to do with a calculation based on a relationship of color components.

Still further, as set forth in Applicants previous Amendment of July 6, 2010 (the entire contents of which are hereby incorporated herein by reference), the Wojaczynski '375 patent also fails to teach or suggest any type of **calculation that is carried out based on a relationship for each of a plurality of color components** excluding a component with a relatively smallest gradation level, wherein the gradation level of the color component with the **relatively smallest gradation level remains unchanged before and after calculation**. Applicant's representative explained that at best, in the Wojaczynski '375 patent, single colors are individually selected and there is no calculation, let alone one where a component with a relatively smallest gradation level is excluded and remains unchanged before and after calculation as claimed.

Accordingly, withdrawal of the rejection of each of the claims is respectfully requested.

#### **Prior Art References are not Combinable**

As discussed in *KSR Int'l Co. v. Teleflex, Inc.*, "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."<sup>2</sup> Applicants assert that this rational underpinning is lacking and thus the Examiner has not met his burden regarding reference combinability. The Examiner has not provided any indication or reason as to WHY one of ordinary skill WOULD combine the reference teachings.

Initially, Applicants note that not only has the Examiner failed to indicate why one of ordinary skill would combine the reference teachings, it is readily apparent that one would clearly NOT be lead to combine the teachings of the

references. First, in the Kuwata '122 publication, tone curves or LUTs are provided with regard to the colors RGB, respectively. By using such tone curves or LUTs, the halftoning process is carried out in the Kuwata '122 publication (paragraphs [0102 and 0103, Fig. 4 and Fig. 5].

However, since the tone curves and LUTs are stored in the ROM (**Read Only Memory**) as disclosed in paragraph [0103], **it is impossible for a user to control** the tone curves or LUT. Namely, the halftoning process of the Kuwata '122 publication can have nothing to do with control by the user.

To the contrary, in the Wojaczynski '375 patent, a user has to slide the scroll bars to control gray scales for each color (Fig. 2b). Thus, the gray scale control in **the Wojaczynski '375 patent inevitably requires user manipulation.**

As such, Applicants believe that not only is there no indication or reason as to WHY one of ordinary skill WOULD combine the reference teachings, there is clearly a reason WHY ONE WOULD NOT combine the reference teachings (namely, one reference REQUIRES user manipulation to achieve its purpose and the other renders it impossible for user control to achieve its purpose). Thus, Applicants respectfully submit that it would not be obvious for one of ordinary skill in the art to combine the teachings of the Kuwata '122 publication and the Wojaczynski '375 patent.

Accordingly, withdrawal of the rejection of each of the claims is respectfully requested.

#### **FURTHER PRIOR ART REJECTIONS**

The Examiner further rejected claims 68 and 73 under 35 U.S.C. § 103 as being unpatentable over the Kuwata '122 publication in view of the Wojaczynski '375 patent and further in view of Yamashita, U.S. Patent Number 6,101,271 (the Yamashita '271 Patent). This rejection is respectfully traversed.

Applicants respectfully submit that even assuming arguendo that the Yamashita '271 Patent could be combined with one or both of the Kuwata '122 publication and the Wojaczynski '375 patent, which is not admitted, the teachings of the Yamashita '271 Patent fail to make up for at least the previously mentioned

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<sup>2</sup> 550 U.S. 398, 418 citing *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006).

deficiencies of the independent claims upon which claims 68 and 73 depend. Accordingly, withdrawal of the rejection is respectfully requested.

The Examiner further rejected claims 134, 136 and 138 under 35 U.S.C. § 103 as being unpatentable over the Kuwata '122 publication and the Wojaczynski '375 patent, and further in view of Smith, U.S. Patent Publication Number 2004/0105105 (the Smith '105 Publication). This rejection is respectfully traversed.

Applicants respectfully submit that even assuming arguendo that the Smith '105 Publication could be combined with one or both of the Kuwata '122 publication and the Wojaczynski '375 patent, which is not admitted, the teachings of the Smith '105 Publication fail to make up for at least the previously mentioned deficiencies of the independent claims upon which claims 134, 136 and 138 depend. Accordingly, withdrawal of the rejection is respectfully requested.

**REJOINDER OF REJECTED DEPENDENT CLAIMS REQUESTED**

Applicants respectfully submit that each of independent claims 1, 2, 33, 34, 37, 38, 63, 65, 66, and 72 is in condition for allowance. Accordingly, **Applicants respectfully request rejoinder of all claims dependent upon the allowable independent claims**, as each of these claims include all of the limitations of the independent claims, which essentially acts as a linking claim or allowable generic claim. Further, with regard to the withdrawn independent claims, these claims have been amended in a manner somewhat similar to that of claim 1 and thus rejoinder and allowance of these claims is respectfully requested.

**CONCLUSION**

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the pending claims in connection with the present application is earnestly solicited.


In the event this Response does not place the present application in condition for allowance, applicant requests the Examiner to contact the undersigned at (703) 668-8000 to schedule a personal interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully Submitted,

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